# **ASX ANNOUNCEMENT**

31 January 2023

# **QUARTERLY ACTIVITIES REPORT TO 31 DECEMBER 2022**HIGHLIGHTS

# **TALLEBUNG TIN PROJECT**

- An 11 RC hole program for a total of 1,913m commenced at the end of the September quarter aiming to grow the potential bulk tonnage tin resource at the Tallebung Tin Target.
- Results received show the program successfully expanded the bulk tonnage tin target along strike and has discovered another high-grade tin zone. Results included:

TBRC042: 11m @ 0.81% Tin from 27m, including;

3m @ 2.70% Tin from 31m.

TBRC040: 17m @ 0.38% Tin & 47.6g/t Silver from 30m, including;

4m @ 1.17% Tin & 171g/t Silver from 30m

- A diamond drilling program of 2 holes for a total of 449.9m was completed in December to better understand the tin distribution to develop a resource in early 2023. These holes intercepted abundant coarse cassiterite (tin-oxide) mineralisation Assays are pending.
- Exceptional metallurgical trials showed pre-processing mass reduction of ~75% achieved from TOMRA ore sorting and dense medium separation (DMS) for 95% recovery of tin.
- The pre-processing mass reduction will significantly lower capex and opex of any potential future operation with only a quarter of mass requiring further and more intensive processing.

# **DORADILLA TIN PROJECT**

- Large RC drilling campaign at the 3KEL Target was completed during the September 2022 quarter with 30 holes drilled for a total of 4,532m.
- Assay results for the last 13 of the 30 holes were received during the quarter, results included:

3KRC030: 43m @ 0.36% Tin, 0.19% Copper & 25.1g/t Indium from 89m, including; 14m @ 0.91% Tin, 0.48% Copper & 49.9g/t Indium from 112m, including; 3m @ 2.48% Tin, 0.90% Copper, 88.8g/t Indium & 23g/t Silver from 117m.

• Large-scale REE mineralisation has recently been discovered at Doradilla. The extent and nature of the REE mineralisation will be explored in 2023 as well as metallurgical testwork to extract the REE mineralisation along with the polymetallic tin-copper-indium-silver-zinc mineralisation previously discovered at Doradilla.

The Board of Sky Metals Limited ('SKY' or 'The Company') is pleased to provide a Quarterly Activities Report outlining SKY's exploration program during the December 2022 quarter.

#### MARCH 2023 OUARTER - PROPOSED WORK PROGRAM

- Aircore drilling and reassaying of previous drilling to further explore the REE mineralisation discovered at Doradilla.
- REE mineral characterisation and metallurgical testwork to find potential extraction pathways for the REE and polymetallic mineralisation at Doradilla.
- RC and diamond drilling at the Tallebung Tin Project to infill and grow the shallow bulk tonnage tin resources.
- Development of an exploration target or resource at the Tallebung Tin Project to then begin scoping studies.
- Extending HUD030 to the Hume Structure and completing DHEM at the Cullarin Project.

# **TALLEBUNG PROJECT (EL 6699, SKY 100%)**

#### TALLEBUNG TARGET - RC DRILLING

Results were received for the RC drilling program of 11 RC holes for a total of approximately 1,913m at the Tallebung Tin Target this quarter. The program was primarily focused on extending and infilling the consistent, strong results achieved in the previous programs. Particularly, to continue extending the Tallebung mineralisation to the south (**Figure 1** and **2**).

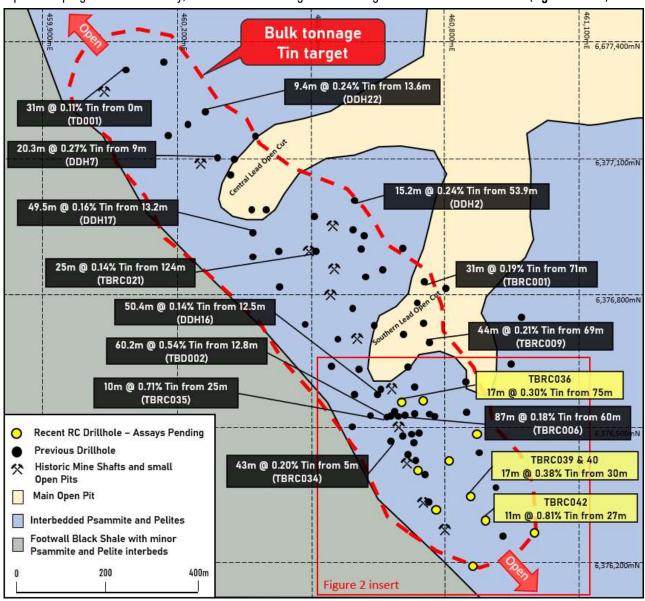


Figure 1: Tallebung Target - Plan view showing the past drilling with the recent RC drillholes in yellow.



The first two RC holes of this program, **TBRC036** and **TBRC037**, were drilled to infill strong results previously intercepted in the vicinity of **TBRC006** (87m @ 0.18% tin from 60m) and **DDH16** (50.4m @ 0.14% tin from 12.5m). Both **TBRC036** and **TBRC037** successfully intercepted the tin lode system with **TBRC036** intercepting two lodes, the first from 75m and an additional lode from 112m. Results for **TBRC036** and **TBRC037** include:

TBRC036: 17m @ 0.30% tin & 0.09% tungsten from 75m, including;

2m @ 1.69% tin & 0.24% tungsten from 86m. 29m @ 0.10% tin from 112m including;

1m @ 1.11% tin from 138m

TBRC037: 17m @ 0.20% tin from 76m, including;

3m @ 0.48% tin from 76m, and;

1m @ 1.51% tin & 0.20% tungsten from 92m.

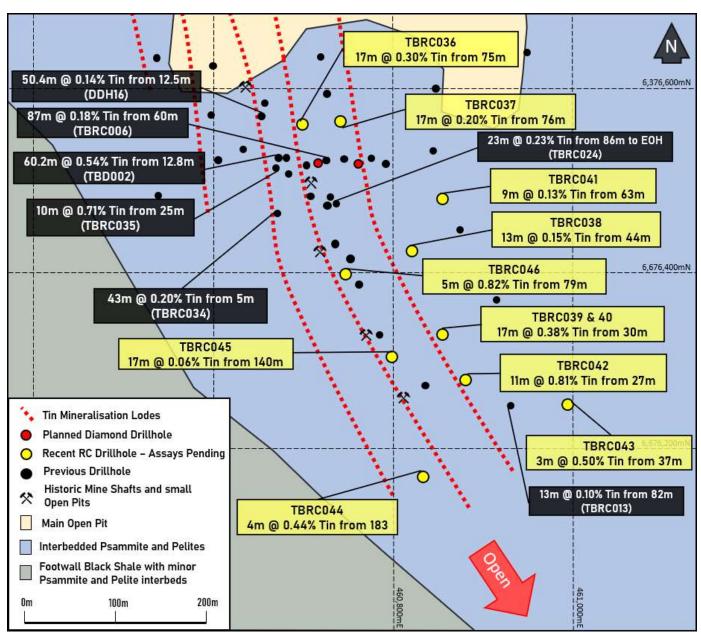


Figure 2: Tallebung Target – Plan view showing the past drilling with the recent RC drillholes in yellow and planned diamond holes are in red. Recent RC holes are in the yellow boxes with assay results.



**TBRC038** was then drilled to begin to further establish the southern extension identified in **TBRC034** in the previous RC program at Tallebung in the June quarter. **TBRC038** was abandoned at 144m due to poor ground conditions, however, **TBRC038** was drilled to sufficient depth to test the primary target of the hole, as shown by the strong tin results below, results include:

TBRC038: 13m @ 0.15% tin from 44m, including;

1m @ 0.70% tin from 55m.

**TBRC039** was also abandoned prematurely, only reaching 35m depth due to drilling difficulties and intercepted tin mineralisation to end of hole (EOH). **TBRC039** was then redrilled as **TBRC040** which achieved 150m before also being abandoned due to excessive hole deviation. **TBRC040** did reach sufficient depth to test the main target for these holes and intercepted the full width of tin mineralisation. Results for **TBRC039** and **TBRC040** include:

TBRC039: 17m @ 0.11% tin & 42.0g/t Silver from 18m to EOH, including;

11m @ 0.16% tin & 0.24% tungsten from 24m to EOH.

TBRC040: 17m @ 0.38% tin & 47.6g/t Silver from 30m, including;

4m @ 1.17% tin & 171g/t Silver from 30m, including; 1m @ 4.06% tin, 0.08% tungsten & 176g/t Silver from 30m.

**TBRC041** was drilled to test down dip extensions of the tin lodes and for repetitions of the tin lode system to the east. The hole reached the target depth and intercepted moderate tin mineralisation and associated quartz veining, demonstrating that the tin lode system is still open to the east of the current extent of drilling at Tallebung. **TBRC041** results include:

TBRC041: 9m @ 0.13% tin from 63m, including; 1m @ 0.62% tin & 0.11% tungsten from 70m.

Hole **TBRC042** was drilled to extend and infill the tin lode system at Tallebung to the south of the current bulk tonnage target. Zones of quartz veining and alteration associated with the tin lode system were intercepted and showed a broad high-grade tin lode with a narrower very high-grade tin intercept within. **TBRC042** shows that further high-grade zones exist at Tallebung, and these have the potential to add significant tonnage to any future resource at Tallebung with further drilling. Results include:

TBRC042: 11m @ 0.81% tin from 27m, including;

3m @ 2.70% tin & 0.24% tungsten from 86m.

21m @ 0.11% tin from 126m including;

2m @ 0.83% tin from 129m.



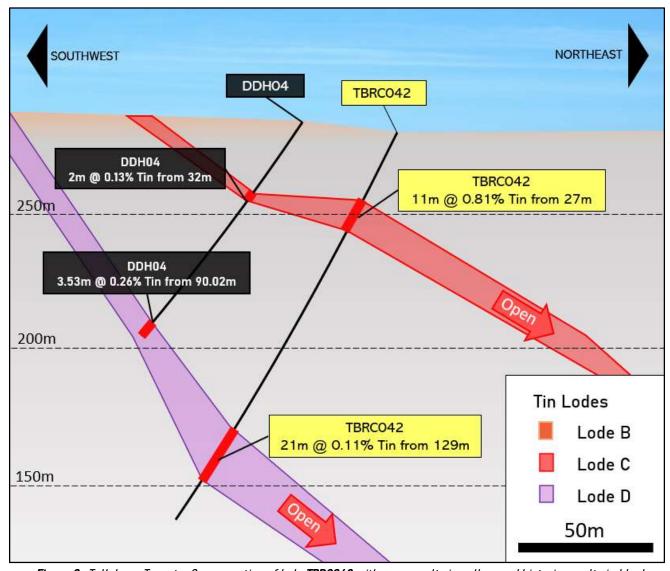


Figure 3: Tallebung Target - Cross-section of hole TBRC042 with new results in yellow and historic results in black.

**TBRC043** and **TBRC044** were also drilled to further extend the tin lode system at Tallebung to the south of the current bulk tonnage target. Both holes intercepted zones of quartz veining and alteration associated with the tin lode system and intercepted further tin mineralisation, demonstrating that the tin lode system remains open to the south along strike. Results include:

TBRC043: 3m @ 0.50% tin from 37m, including;

1m @ 0.93% tin from 39m.

TBRC044: 4m @ 0.44% tin from 182m, including;

1m @ 1.27% tin from 183m.

**TBRC045** and **TBRC046** were drilled to test up dip extensions of the deeper tin mineralisation intercepted in **TBRC040** and **TBRC042** and further extend the central and western tin lodes at Tallebung to the south, infilling from **TBRC034** to **TBRC044**. These holes also successfully intercepted strong tin mineralisation associated with zones of quartz veining and alteration of the tin lode system. Results include:

TBRC045: 17m @ 0.06% tin, 0.08% tungsten from 140m, including;

1m @ 0.50% tin & 0.34% tungsten from 141m.



#### TBRC046: 5m @ 0.82% tin, 169g/t Silver, 0.25% Cu & 2.22% Zinc from 79m, including;

All holes drilled in this program have successfully delineated further strong tin mineralisation associated with the tin lode system at Tallebung. The tin lode system at Tallebung remains open both along strike and up and down dip, further demonstrating the excellent potential for Tallebung to develop into a large bulk tonnage tin mining operation.

SKY is very encouraged with these results and in conjunction with the diamond drilling program to better establish structural controls on mineralisation, plan to develop a potential exploration target or resource over the coming months for Tallebung.

# **TALLEBUNG TARGET - DIAMOND DRILLING**

A diamond drilling program of 2 holes, **TBD003** and **TBD04**, for a total of 449.9m has been completed at the Tallebung Tin Target in December 2022. The aim of this program was to increase SKY's structural understanding of the controls to the distribution of tin mineralisation at Tallebung with orientated core and provide further geochemical data.

Both holes are planned to be drilled to over 200m with wide PQ core drilled to approximately 150m. The larger PQ core will assist in accounting for the nugget effect due to the coarse nature of cassiterite tin at Tallebung (**Figure 4**) before casing down to HQ to EOH. Both holes were drilled in a 'top-to-tail' to overlap vertically near **TBRC006** and **TBD002**, where the highest grade and widest tin mineralisation has been intercepted at Tallebung to date.

Diamond drillhole **TBD002**, drilled by SKY in the June quarter this year, showed indications that faulting may have an important relationship in upgrading tin mineralisation and possibly dislocating mineralisation. As such, it is very important that SKY uses the crucial information gained from this diamond drilling program to continue to better understand the substantial tin mineralisation at Tallebung.

**TBD003** intercepted significant tin mineralisation as abundant coarse cassiterite (tin-oxide) in consistent and large quartz veining from approximately 30-90m downhole (**Figure 4**). The drilling of orientated core and the planned location of **TBD003** and **TBD004** will provide SKY's geologists with vital data to strength the geological understanding of the tin mineralisation.

Growing geological knowledge at Tallebung will to not only be vital in estimating the quantity and grade of the tin mineralisation, but it will also be invaluable in discovering further strong tin mineralisation at Tallebung over the coming quarters.





Figure 4: Tallebung Target – Drill core from the first diamond hole in the latest program, TBD003 (33.3-43.05m), intense quartz veining hosting abundant cassiterite (tin oxide). Left-hand side red box: a close up of 38.2-38.4m – visible coarse cassiterite circled in blue chinagraph, hosted in a large quartz vein. Right-hand side red box: a close up of 40.0-40.3m – coarse cassiterite up to 10mm across circled in blue, hosted in a quartz vein. Core is 83.1mm wide for scale.

NB: Cassiterite contains over 78% tin and is 2.6x denser than quartz, therefore, 1% cassiterite in the core = over 2% tin grade.

#### TALLEBUNG TARGET – BULK METALLURGICAL TESTWORK

SKY conducted Dense Medium Separation (DMS) trials on the crushing fines (fines) to build on the exceptional results already achieved in producing a saleable +60% tin concentrate from the coarse cassiterite tin mineralisation at Tallebung (SKY ASX Announcement 24 October 2022). This trial of HMS has shown exceptional potential for use at Tallebung to reduce the mass to be processed in the gravity circuit to approximately a quarter of the total mass mined.

The flowsheet developed from the testwork on the Tallebung mineralisation involved an initial crushing of the rock to reduce the size. The crushed rock is then separated into +8mm crushed rock suitable for ore sorting and a -8mm fines which are too fine to be ore sorted.

These fines accounted for approximately 23.4% of the mass before ore sorting and when recombined with the +8mm ore sorting product account for almost 50% of the mass requiring further processing via the gravity circuit. As such, reducing the mass of these fines has the potential to significantly reduce the mass for gravity processing.

The trial of DMS on the 127kg of fines has shown that the mass of these can be reduced significantly from 127kg to 10.3kg or 8.1% of the starting mass while recovering 86.9% of tin. When recombined with the ore sorted product, the ore sorting and DMS combine to reduce the mass intensive processing by almost 75% (**Tables 1** and **2**).



**Table 1** – Tallebung Tin Project, Tallebung Target. Summary results table for the TOMRA ore sorting bulk testwork showing significant 3 times increase in tin grade and 1/3 reduction in mass for 98% recovery of tin (from SKY ASX Announcement 5 September 2022).

Fraction	Sample	Weight	Total Weight Fraction	Sort Weight Fraction	Tin Grade	Sort Recovery	Total Recovery	Upgrade
-85mm	Feed	542 kg	100%	-	0.29%	-	-	-
25-50mm	Product	74 kg	13.7%	30.0%	0.65%	97%	30%	2.24
25-50mm	Waste	173 kg	31.9%	70.0%	0.01%	3%	1%	0.03
8-25mm	Product	62 kg	11.4%	36.9%	1.18%	99%	46%	4.07
8-25mm	Waste	106 kg	19.6%	63.1%	0.01%	1%	1%	0.03
Sorted Total	Product	136 kg	51.5%	32.8%	0.89%	98%	76%	3.07
(8-50mm)	Waste	279 kg	25.1%	67.2%	0.01%	2%	2%	0.03
-8mm	Fines	2.98	23.4%	-	0.28%	-	22%	-

**Table 2** – Tallebung Tin Project, Tallebung Target. Summary results table for the DMS bulk testwork showing almost 11 times increase in tin grade and +90% reduction in mass for 95% total recovery of tin for reducing the starting mass by approximately 75%.

Fraction	Sample	Weight	Total Weight Fraction	Tin Grade	Process Recovery	Total Tin Recovery	Upgrade Factor
-8mm	Fines	127 kg	23.4%	0.28%	-	22.3%	-
HMS Fines	Product	10.3 kg	8.1%	3.01%	86.9%	19.4%	10.75
nivio rines	Waste	116.7 kg	91.9%	0.04%	13.1%	2.9%	0.14
Ore Sorting	Product	136 kg	51.5%	0.89%	98%	76%	3.07
	Waste	279 kg	25.1%	0.01%	2%	1.8%	0.03
Combined HMS and Ore Sorting Product	Gravity Plant Feed	146 kg	27%	1.04%	•	95.3%	3.54

The extraordinary reduction in mass also increases the tin grade of the feed into the gravity plant. A higher grade being fed into the gravity plant is expected to increase the recovery of tin as many of the gravity processes show a fixed tail grade, therefore, the higher the grade that is fed into the plant the lower percentage of the tin that will be in the tail grade. This will act to increase the recoveries of tin and the gravity plant and will compensate for the tin lost in the reducing the mass via ore sorting and DMS processing.

This excellent DMS trial result continues to demonstrate the exceptional nature of the Tallebung tin mineralisation for concentration to a saleable tin concentrate.



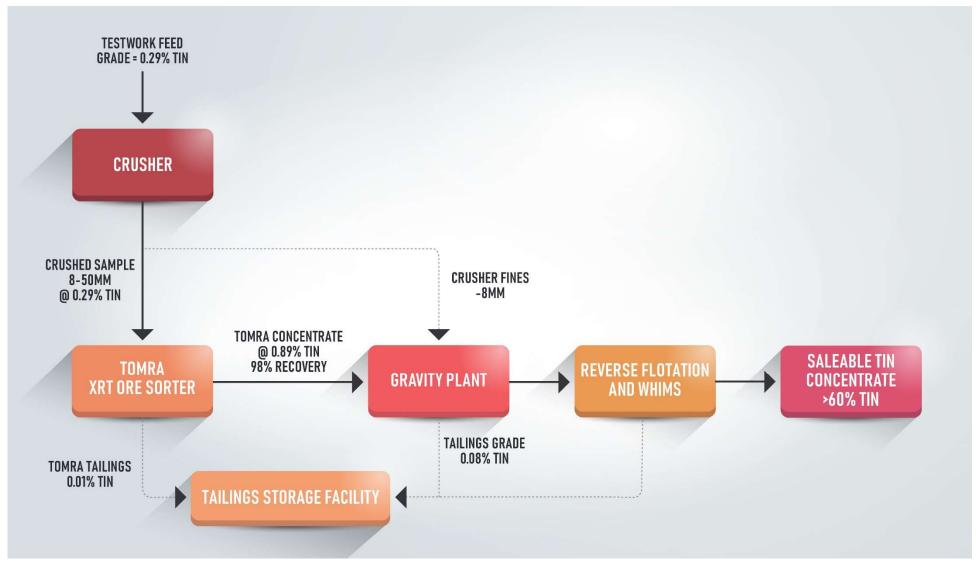


Figure 5: Tallebung Target – More detailed simplified schematic flowsheet starting with the TOMRA XRT Ore Sorter and now with the DMS on the crusher fines to increase the tin grade to significantly reduce the total mass to undergo processing. The reduced feed will be further upgraded in the gravity plant before reverse flotation and WHIMS dressing to produce the saleable tin concentrate.



 Table 3 - Tallebung Tin Project, Tallebung Target. Collar summary for drill holes.

Hole ID	Easting (MGA)	Northing (MGA)	RL (m)	DIP	Azimuth (MGA)	Total Depth (m)	Comment
TBRC036	460719	6376590	290	-60	260	192	Completed
TBRC037	460780	6376598	290	-62	260	204	Completed
TBRC038	460843	6376426	294	-57	255	144	Abandoned past target due to drilling difficulty
TBRC039	460862	6376332	296	-60	245	35	Abandoned before target depth due to drilling difficulty
TBRC040	460862	6376332	296	-60	245	150	Abandoned past target due to excessive hole deviation
TBRC041	460855	6376488	291	-62	258	204	Completed
TBRC042	460871	6376274	297	-62	243	168	Completed
TBRC043	460997	6376255	298	-62	240	204	Completed
TBRC044	460826	6376170	300	-62	237	204	Completed
TBRC045	460800	6376309	299	-60	237	210	Completed
TBRC046	460780	6376403	301	-60	256	198	Completed
TBD003	460736	6376518	288	-55	250	222.4	Completed – Assays Pending
TBD004	460660	6376526	288	-55	250	227.5	Completed – Assays Pending

 Table 4 - Tallebung Tin-Tungsten Project, Tallebung Target. Significant drillhole intersections.

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Hole ID	From	To	Interval	Sn	W	Ag	Cu	Zn	Comment	
	(m)	(m)	(m)	%	%	g/t	%	%		
TBRC036	3	19	16	0.11	0.01	9.1	-	-		
including	3	5	2	0.44	0.04	-	-	-		
	75	92	17	0.3	0.09	5.06	0.01	0.1		
including	86	88	2	1.69	0.24	12.6	0.02	0.44		
	112	141	29	0.1	-	-	-	-		
including	123	125	2	0.51	0.01	-	-	-		
and	138	139	1	1.11	0.01	19.6	0.06	0.64		
	160	162	2	0.21	0.01	-	-	0.6		
	175	177	2	0.18	-	-	0.02	1.78		
	181	182	1	0.17	0.03	-	0.01	0.21		
TBRC037	76	93	17	0.2	0.03	-	-	-		
including	76	79	3	0.48	0.04	17	-	-		
and	92	93	1	1.51	0.2	-	-	-		
	184	185	1	0.6	0.01	8.75	0.02	0.47		
TBRC038	4	5	1	0.6	0.07	-	-	-		
	44	57	13	0.15	0.03	13.3	-	-		
including	55	56	1	0.7	0.01	19.4	-	-		
	107	114	7	0.12	0.03	9.66	-	0.28		
TBRC039	18	35	17	0.11	0.02	42	-	-	Abandoned due to poor drilling conditions	
including	24	35	11	0.16	0.02	63.5	-	-		
TBRC040	30	47	17	0.38	0.04	47.6	-	-		
including	30	34	4	1.17	0.04	171	-	-		
including	30	31	1	4.06	0.08	176	-	-		
and	46	47	1	1.34	0.4	-	-	-		
	105	107	2	0.19	-	-	-	1.02	Re-drill of TBRC039	
	124	126	2	0.31	0.46	36	0.15	0.9		



Hole ID	From	To	Interval	Sn	W	Ag	Cu	Zn	Comment
	(m)	(m)	(m)	%	%	g/t	%	%	
	136	137	1	0.3	0.04	43.8	0.06	1.39	
	142	145	3	0.23	0.02	42.6	0.11	1.29	
TBRC041	0	2	2	0.11	-	-	-	-	
	9	14	5	0.09	-	-	-	-	
	22	25	3	0.15	i	-	-	-	
	63	72	9	0.13	0.02	-	-	-	
including	70	71	1	0.62	0.11	-	-	-	
	109	116	7	0.09	-	8.93	-	-	
TBRC042	27	38	11	0.81	0.01	-	-	-	
including	31	34	3	2.7	0.02	-	-	-	
	102	103	1	0.12	0.01	20.8	0.03	0.78	
	126	147	21	0.11	0.02	8.46	0.01	0.12	
including	129	142	13	0.16	0.02	8.3	0.01	0.17	
including	129	131	2	0.83	0.02	-	0.01	0.3	
TBRC043	10	11	1	-	0.56	-	-	-	
	37	40	3	0.5	-	7.63	-	-	
including	39	40	1	0.93	-	-	-	-	
TBRC044	25	26	1	0.3	0.02	-	-	-	
	47	50	3	0.16	0.1	28.9	0.03	-	
including	47	48	1	0.34	0.26	-	-	-	
	133	138	5	0.17	0.09	8.74	0.04	0.28	
including	136	138	2	0.39	0.2	-	-	0.3	
	182	186	4	0.44	0.03	-	-	-	
including	183	184	1	1.27	-	-	-	-	
TBRC045	140	157	17	0.06	0.08	8.33	-	-	
including	141	142	1	0.5	0.34	-	-	-	
	202	208	6	_	0.07	-	-	0.49	
including	207	208	1	-	0.34	11.5	0.02	2.25	
TBRC046	79	84	5	0.82	0.02	169	0.25	2.22	
including	80	81	1	1.62	-	242	0.41	0.43	

# **DORADILLA PROJECT: TIN (EL 6258, SKY 100%)**

#### **3KEL TARGET - RC DRILLING**

The large RC program to infill and extend the 3KEL Target with 30 holes drilled for a total of 4,532m was completed in early September 2022. Results for the first 17 holes in this program were announced previously in September (SKY ASX 20 September 2022). Results for the remaining 13 holes were received in the December quarter.

The RC program began on the north-eastern end of the 3KEL Target before stepping to the south-west, testing along the 2.8km strike. The first 17 holes were focussed on extending the strike to the northeast and infill drilling the 3KEL Target in the northeastern half of the total 2.8km strike while the remaining 13 holes were drilled on the southwestern end of the 3KEL Target.

Results for these 13 holes, **3KRC030-42**, have now been received, beginning with holes **3KRC030-32** which were designed to infill between the exceptional results in **3KRC0011** and **3KRC0007** (**Figure 6** and **7**). **3KRC030** was drilled near **3KRCD007** and **3KDD014**, as shown in cross section in **Figure 8**. Results from **3KRC030-32** include:



3KRC030: 43m @ 0.36% tin, 0.19% copper & 25.1g/t indium from 89m, including;

14m @ 0.91% tin, 0.48% copper, 49.9g/t Indium & 9.74g/t silver from 112m, including;

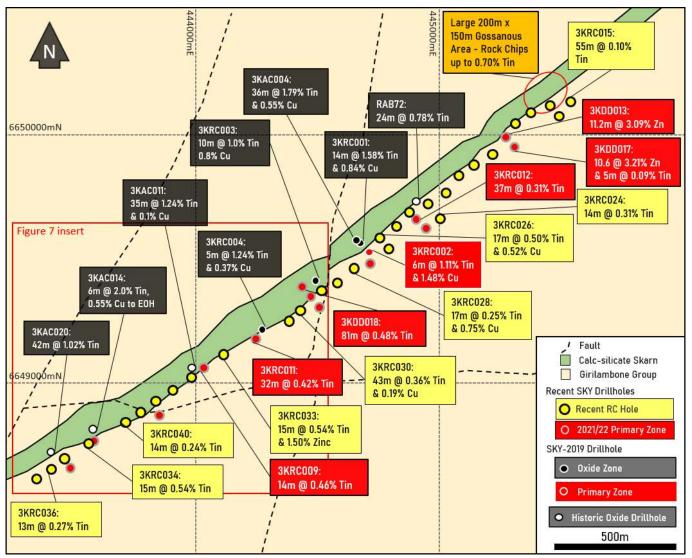
3m @ 2.48% tin, 0.90% copper, 88.8g/t Indium & 22.5g/t silver from 117m.

3KRC031: 38m @ 0.15% tin & 10.4g/t Indium from 38m.

11m @ 0.32% tin, 0.11% copper & 39.9g/t Indium from 84m.

3KRC032: 29m @ 0.20% tin & 16.9g/t Indium from 107m, including;

2m @ 1.11% tin, 0.19% copper & 63.9g/t Indium from 132m.

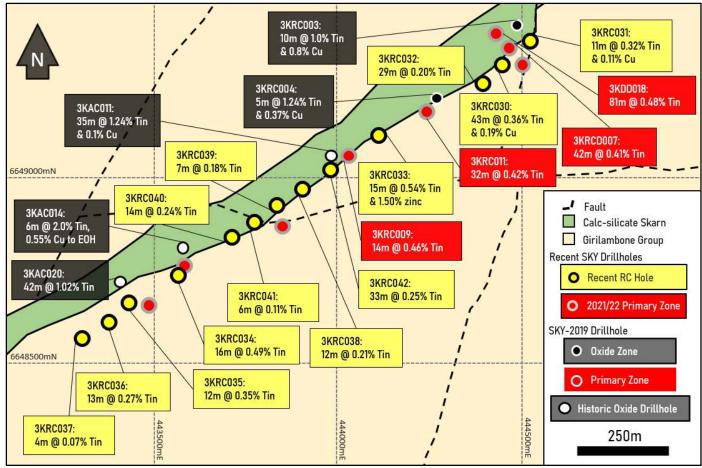


**Figure 6:** 3KEL Target – Plan view of the whole 3KEL Target showing the past drilling with the recent RC drillholes. Recent results are in yellow, past results in red and black for oxide and primary intercepts, respectively.

**3KRC033** was then drilled to infill between **3KRC009** and **3KRC011**, two of the highest grade and widest intercepts to date along the 3KEL strike. **3KRC033** intercepted the calc-silicate target horizon and strong tin and zinc mineralisation. Results included:

3KRC033: 38m @ 0.28% tin, 0.62% zinc & 19.6/t Indium from 80m, including; 15m @ 0.54% tin, 0.05% copper, 1.50% zinc & 40.0g/t Indium from 98m including; 6m @ 0.59% tin, 0.08% copper, 3.58% zinc & 59.7g/t Indium from 100m.





**Figure 7:** 3KEL Target – Plan view of the southwestern end of the 3KEL Target showing the past drilling with the recent RC drillholes. Recent results are in yellow, past results in red and black for oxide and primary intercepts, respectively.

The program then moved to the southwest end of the 3KEL Target to redrill holes **3KRC005**, **3KRC006** and infill to hole **3KDD015**. **3KRC005** and **3KRC006** failed to intercept the target depth in the previous drilling program by SKY in 2021 and **3KDD015** intercepted the calc-silicate skarn horizon at depth. Both **3KRC034** and **3KRC035** successfully intercepted the target calc-silicate and high-grade tin mineralisation, results include:

3KRC034: 16m @ 0.49% tin & 30.2g/t Indium from 117m, including;

6m @ 1.06% tin & 58.2g/t Indium from 120m.

3KRC035: 12m @ 0.35% tin, 0.24% zinc & 25.0g/t Indium, including;

2m @ 1.29% tin & 84.4g/t Indium.

The program continued to the southwest end of the 3KEL Target with holes **3KRC036** and **3KRC037** drilled to extend the 3KEL Target to the southwest and increase the large 2.8km strike already established at 3KEL. These holes successfully extended the 3KEL Target and while **3KRC036** has intercepted the calc-silicate horizon and discovered strong tin mineralisation, **3KRC037** intercepted a weakly altered and mineralised stratigraphy. During drilling pad preparation for another hole further to the southwest of **3KRC036** and **3KRC037**, potential skarn was found while conducting earthworks. A sample has been taken from this area and indicates that the target calc-silicate horizon at 3KEL has a potential offset to the south. Therefore, **3KRC037** may have been drilled too far to the northwest of the 3KEL Target and, as such, not intercepted the strong tin mineralisation intercepted in all the other drilling at 3KEL. Additional work will aim to build on this knowledge to extend 3KEL to further to the southwest. Results for **3KRC036** and **3KRC037** include:

3KRC036: 13m @ 0.27% tin & 21.0g/t Indium from 97m.

3KRC037: 4m @ 0.07% tin from 85m.



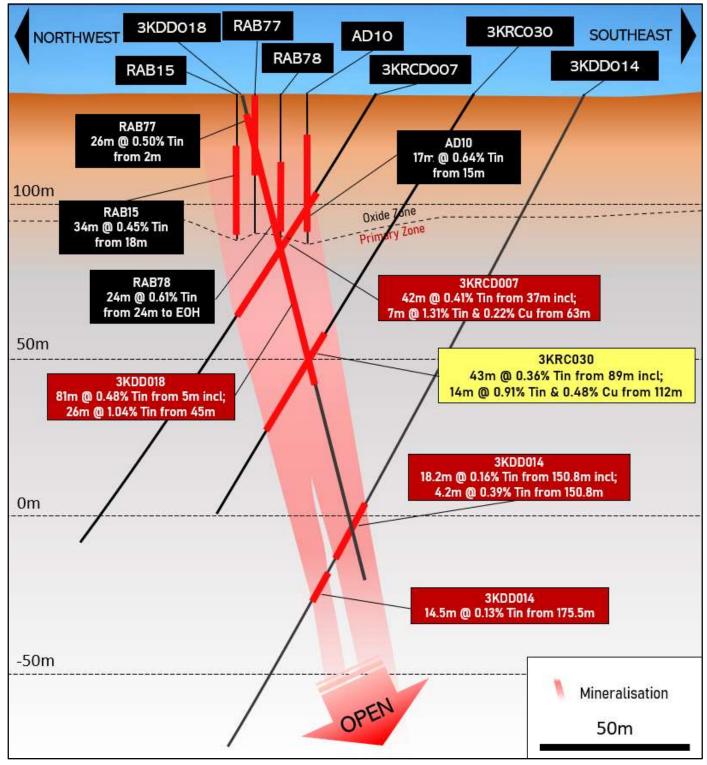


Figure 8: 3KEL Target - Cross section of 3KRCD007, 3KDD014, 3KDD018 and recent hole 3KRC030, recent results are in yellow.

After successfully extending the 3KEL strike to the southwest, drilling moved back to infill along the 3KEL Target. Holes 3KRC038, 3KRC039 and 3KRC042 were drilled to infill the excellent tin mineralisation intercepted in 3KRC009 and between hole 3KRC008 which failed to reach target depth. 3KRC038, 3KRC039 and 3KRC042 successfully intercepted tin mineralisation and the target calc-silicate horizon, results include:

3KRC038: 81m @ 0.13% tin from 81m, including; 3m @ 0.35tin & 18.1g/t Indium from 90m.



12m @ 0.21% tin 14.0& g/t Indium from 106m.

3KRC039: 7m @ 0.18% & 10.2g/t Indium from 116m.

3KRC042: 5m @ 0.11% tin from 73m.

33m @ 0.25% tin & 12.8g/t Indium from 85m, including;

7m @ 0.60% tin & 33.1g/t Indium from 104m.

Finally, holes **3KRC040** and **3KRC041** were drilled to infill between **3KRC005**, **3KRC006** and **3KDD008**. All holes **3KRC005**, **3KRC006** and **3KDD008**, failed to reach target depth due to poor drilling conditions. **3KRC040** and **3KRC041** both intercepted the target calc-silicate horizon and strong tin mineralisation. Results include:

3KRC040: 14m @ 0.24% tin & 20.9g/t Indium from 111m.

3KRC041: 6m @ 0.11% tin & 14.2g/t Indium from 112m.

All results have now been received for the large RC program at 3KEL. The program has successfully established at least a 2.8km strike with excellent tin-polymetallic results for the entire length of the target. 3KEL also remains open, demonstrated with results from the most north-eastern hole, **3KRC015**, intercepting 55m @ 0.10% tin, and the skarn discovered in earthworks near **3KRC037** demonstrate potential to further grow the already exceptional size of the 3KEL Target with further work from SKY.

#### DORADILLA PROJECT – REE MINERALISATION

With the recent discovery of widespread REE mineralisation along the DMK line at Doradilla, including REE mineralisation at 3KEL, SKY will focus on continuing to explore the extent and nature of the REE mineralisation (SKY ASX Announcement 25 January 2023). Further metallurgical testwork for extracting the REE mineralisation along with the polymetallic tin-copper-indium-silver-zinc mineralisation will be conducted through the following quarters in 2023.

This work will be conducted in conjunction with further resampling of previous historic drilling where possible and further drilling to target further REE mineralisation as soon as conditions allow.

**Table 5** - Doradilla Tin-Polymetallic Project, 3KEL Target. Collar summary for drill holes.

Hole ID	Easting (MGA)	Northing (MGA)	RL (m)	DIP	Azimuth (MGA)	Total Depth (m)	Comment
3KRC030	444458.79	6649311.33	132.27	-57	326.18	156	Completed
3KRC031	444509.65	6649367.19	131.83	-57	324.39	144	Completed
3KRC032	444394.78	6649259.12	132.58	-57	324.46	156	Completed
3KRC033	444107.96	6649102.95	139.18	-57	324.96	138	Completed
3KRC034	443585.2	6648737.59	135	-57	326.35	162	Completed
3KRC035	443446.49	6648657.29	135.2	-57	326.06	144	Completed
3KRC036	443382.61	6648613.23	135.61	-57	324.39	156	Completed
3KRC037	443310.11	6648574.72	135.77	-57	325.88	138	Completed
3KRC038	443909.84	6648964.77	133.94	-57	326.02	138	Abandoned due to water
3KRC039	443845.83	6648914.12	133.78	-57	324.61	144	Completed
3KRC040	443711.57	6648830.84	134.53	-57	324.61	150	Completed
3KRC041	443779.98	6648875.44	134.13	-57	324.61	150	Completed
3KRC042	443965.78	6649006.38	133.59	-57	324.61	138	Completed



Table 6 - Doradilla Tin-Polymetallic Project, 3KEL Target. Significant drillhole intersections.

Hole ID	From	To	Interval	Sn	Cu	Zn	ln	Ag	Comment
	(m)	(m)	(m)	%	%	%	g/t	g/t	
3KRC030	89	132	43	0.36	0.19	-	25.1	-	
including	112	126	14	0.91	0.48	-	49.9	9.74	
including	117	120	3	2.48	0.9	-	88.88	22.5	
3KRC031	38	76	38	0.15	-	-	10.4	-	
	84	95	11	0.32	0.11	-	39.9	-	
3KRC032	107	136	29	0.2	-	-	16.9	-	
including	132	134	2	1.11	0.19	-	63.9	-	
3KRC033	80	118	38	0.28	-	0.62	19.6	-	
including	98	113	15	0.54	0.05	1.5	40	-	
including	100	106	6	0.59	0.08	3.58	59.7	-	
including	105	106	1	0.44	0.19	10.1	180.1	-	
3KRC034	117	133	16	0.49	-	-	30.2	-	
including	120	126	6	1.06	-	-	58.2	-	
3KRC035	87	99	12	0.35	-	0.24	25	-	
including	89	91	2	1.29	-	-	84.4	-	
3KRC036	97	110	13	0.27	-	-	21	-	
3KRC037	85	89	4	0.07	-	-	-	-	
3KRC038	81	96	15	0.13	-	-	-	-	
including	90	93	3	0.35	-	-	18.1	-	
	106	118	12	0.21	-	-	14	-	
3KRC039	116	123	7	0.18	-	-	10.2	-	
3KRC040	111	125	14	0.24	-	-	20.9	-	
3KRC041	112	118	6	0.11	-	-	14.2	-	
3KRC042	73	78	5	0.11	-	-	-	-	
	85	118	33	0.25	-	-	12.8	-	
including	104	111	7	0.6	-	-	33.1	-	

# **CULLARIN PROJECT: GOLD-LEAD-ZINC-COPPER (EL 7954, SKY 80%; DVP JV)**

#### **HUME TARGET - DIAMOND DRILLING AND DHEM**

Diamond drilling completed at the Hume Target in 2021 highlighted the potential of the high-grade, gold-lead-zinc-copper mineralisation at depth at Hume. **HUD031** intercepted intervals of massive sulphides and strong base metal mineralisation, extending the known mineralisation by over 80m down plunge, deeper than any previous drilling at Hume. Assays received from **HUD031** show broad intervals of base metal mineralisation at depth (**Figures 8 and 9**). Results included:

HUD031: 32m @ 5.09% Pb+Zn, 0.15% Cu, 6g/t Ag from 420m including; 6m @ 8.93% Pb+Zn, 0.51% Cu, 18g/t Ag, 0.13g/t Au from 446m

SKY is encouraged by these thicker intervals of mineralisation at the Hume Target and the high content of conductive sulphides intercepted in this mineralisation indicate it may be detected effectively by a downhole electromagnetic (DHEM) survey. SKY intends to follow-up these promising results by re-entering **HUD030** and drilling deeper to intercept the Hume Structure approximately 100m below **HUD031**. This will test further extensions of the high-grade mineralisation in **HUD031** and test for any other potential mineralisation by using the hole as a platform for a DHEM survey. SKY will complete this work early in the March 2023 quarter.



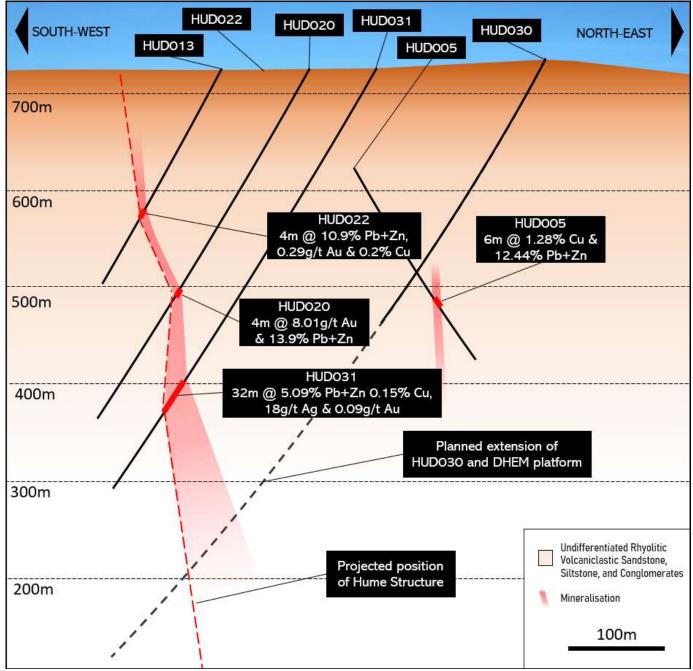
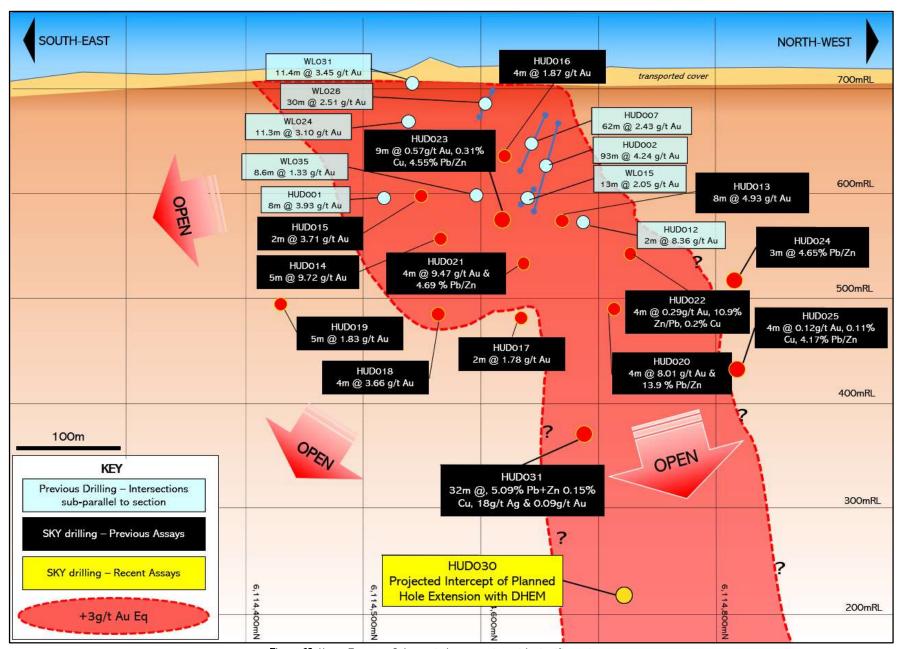


Figure 9: Hume Target – Cross-section of HUD030 showing the trace in a dotted line of the planned extension of the hole to test the Hume Structure at depth and provide a platform for DHEM.



**Figure 10**: Hume Target - Schematic long-section with significant intercepts.



# IRON DUKE PROJECT: COPPER-GOLD

# BALMAIN OPTION 100% (EL6064), SKY 100% (9191)

The Iron Duke Project covers the Iron Duke Shear Zone which is at least 4km in strike and open to the south. Several historic copper mines occur along the Iron Duke Shear Zone including the Iron Duke, Christmas Gift, Monarch, Mount Pleasant and Silver Linings mines, along with several unnamed copper workings and shafts. In the June 2021 quarter, SKY completed a maiden drilling program at the Iron Duke Mine, in conjunction with a VTEM survey and DHEM, to identify extensions to the high-grade copper-gold mineralisation along the Iron Duke Shear Zone (SKY:ASX Announcement 2<sup>nd</sup> June 2021).

An RC and diamond drilling program is planned to test for further extensions to the Iron Duke mine and test the previously undrilled historic mines at the Christmas Gift Workings (comprising of the Christmas Gift, Monarch, Mount Pleasant and Silver Linings mines). However, this program has been delayed due to extremely wet ground condition preventing access to the area. Currently, this program is planned for the following quarters after a detailed review of the geophysics, mining records, historic data and previous drilling to develop robust targets for further drill testing and expansion of the Iron Duke mineralisation.

# **CALEDONIAN PROJECT: GOLD**

#### 100% SKY (EL8920 & EL9020)

SKY has now completed a soil sampling program, a phase of AC drilling, two phases of RC drilling and two diamond drill holes at the Caledonian Target. A review of SKY's and historic results indicates the Caledonian gold mineralisation likely represents a shallow, sub-horizontal blanket of oxide and supergene gold mineralisation developed over an oxidised skarn.

SKY completed a shallow aircore (AC) drilling program over the area consisting of 38 vertical AC holes for a total of 697m on 50-100m spacing over the 600m x 400m area of mineralisation defined by the previous drilling, soil sampling and costeaning. Dure to significant ground waters intercepted by the AC drilling, preventing all but 4 of the 38 holes drilled from reaching refusal, SKY does not consider the target concept of a shallow, sub-horizontal blanket of oxide and supergene gold mineralisation to have been effectively tested. These results will be evaluated, along with the previous drilling, to direct SKY to further shallow high-grade oxide gold mineralisation in the target area.

SKY has been informed of the proposed development of a solar farm on the northern area of EL8920. This area covers the Jerrawa Strike which is a trend of metallic occurrences that SKY interprets to be an exhalative horizon with strong potential to host gold-silver and base metal mineralisation. The solar farm developers have agreed to fund a soil sampling and geophysical program to ensure that the solar farm will not be developed over significant mineralisation. The work is anticipated to be completed in the March 2023 quarter.

# **GALWADGERE PROJECT: COPPER-GOLD**

#### 100% SKY (EL6320)

In 2021 SKY announced the Galwadgere maiden JORC-2012 Inferred Resource of **3.6Mt at 0.82% Cu & 0.27g/t Au** prepared by H&S Consultants (H&SC). H&S were engaged by SKY to complete the maiden resource using drilling completed by SKY in 2020 and previous drilling completed by Alkane Resources (ALK) and other past explorers. A drilling program at the Galwadgere Target is planned for the next quarters to further expand on the maiden JORC-2012 resource.

Soil sampling undertaken along strike from the Galwadgere MRE has identified two copper-gold, multielement pathfinder soil anomalies. The northern soil sampling program has delineated a 200m x 100m soil anomaly which is coincident with the



McDowell's mine, several historic mine shafts and copper-carbonate bearing rocks discovered near these workings. Soil sampling south of the Galwadgere Target has identified another soil anomaly which appears similar in tenor to the anomaly identified at the McDowell's mine. These anomalies are within 3km of the Galwadgere resource and provide strong support for expanding the copper-gold resource at Galwadgere with along strike exploration. These are priority drill targets to be tested.

## KANGIARA PROJECT: GOLD

## 80% SKY (EL8400 & EL8573; DVP JV)

The Kangiara Project (EL8400, EL8573) is located 30km northwest of Yass in the Southern Tablelands of New South Wales (**Figure 10**). The project contains volcanic/volcaniclastic rocks of the Silurian Douro Group considered prospective for gold and base metal (copper-zinc) mineralisation. The high grade Kangiara Mine operated during the early 1900s, with documented production of ~40,000 tonnes at 16% Pb, 3% Cu, 5% Zn, 280g/t Ag and 2g/t Au from narrow north-south trending sulphide veins (ASX PDM 18 June 2009). Previous work by Paradigm Metals led to the calculation of an Indicated and Inferred Mineral Resource at Kangiara. Further desktop studies and follow-up field investigations are planned for the following guarters.

## TIRRANA PROJECT: GOLD

#### 100% SKY (EL9048)

As part of a regional review of the Cullarin area for McPhillamys-style gold mineralisation, SKY identified an area of open ground to the south-east of the Cullarin project. A detailed desktop review of previous exploration covering Tirrana was completed in the December 2021 quarter. This review identified two key areas for follow up.

# **NEW ENGLAND PROJECT: TIN**

#### 100% SKY (EL9200 & 9210)

The New England Projects in the New England Orogen of NSW cover areas of significant historical tin production – Emmaville & Gilgai. These areas were selected as they were considered to have significant potential to host hardrock tin resources and limited modern day exploration has been conducted. A detailed desktop review of previous exploration covering these areas is proposed for the following quarters with field work planned to follow-up any prospective targets which are identified.

## NARRAIH PROJECT: TIN

#### 100% SKY (ELA6486)

The Narriah Project is prospective for tin, lithium and tungsten. Multiple historic mines and workings are present in the area including the Restdown and Erigolia tin mining fields. Historic records state that tin and tungsten were previously mined from both alluvial and hard rock sources. The tenement covers the Erigolia Granite intruding the sediments of the Clements Formation. Previous exploration identified anomalous lithium grades in rock and soil sampling. Lithium anomalism appears offset to the historic tin workings and in the vicinity of the Restdown mining field. At this stage, no lithium bearing minerals are identified in samples from the tenement. Further work to understand the distribution of lithium and the lithium-bearing minerals is required upon grant of the tenement which is anticipated in the March 2023 quarter. Following the grant of this tenement, SKY will conduct a detailed literature review of previous exploration and field work as required, including geological mapping, potential surface sampling and drilling of any targets identified.



# **CORPORATE**

During the quarter \$614k was spent on the exploration activities outlined in this report.

No mining production and development activities undertaken for the quarter.

SKY has received a notice of proposed decision to grant ELA 6486 – Narriah early in the March quarter.

During the quarter \$38k was paid as Non-Executive Director fees.

Holder	Equity	Licence ID	Grant Date	Expiry Date	Units	Area	Comment
Tarago Exploration Pty Ltd (DVP sub)	80%	EL7954	19-6-2012	19-6-2022	51	144 km²	Cullarin Project, SKY: DVP JV
Ochre Resources Pty Ltd (DVP sub)	80%	EL8400	20-10-2015	20-10-2024	52	147 km²	Kangiara Project, SKY: DVP JV
Ochre Resources Pty Ltd (DVP sub)	80%	EL8573	23-5-2017	23-5-2023	17	48 km²	Kangiara Project, SKY: DVP JV
Aurum Metals Pty Ltd (SKY sub)	100%	EL8920	5-12-2019	5-12-2025	65	183 km²	Caledonian Project
Aurum Metals Pty Ltd (SKY sub)	100%	EL9120	30-3-2021	30-3-2027	50	141 km²	Caledonian Project
Aurum Metals Pty Ltd (SKY sub)	100%	EL9048	15-2-2021	15-2-2026	52	147 km <sup>2</sup>	Tirrana Project
Gradient Energy Pty Ltd (SKY sub)	100%	EL6320	12-10-2004	12-10-2026	14	41 km <sup>2</sup>	Galwadgere Project
Balmain Minerals Pty Ltd	Option to Purchase 100%	EL6064	21-3-2003	20-3-2028	5	15 km²	Iron Duke Project
Gradient Energy Pty Ltd (SKY sub)	100%	EL9191	8-6-2021	8-6-2021	60	174 km²	Iron Duke Project
Stannum Pty Ltd (SKY sub)	100%	EL6258	21-6-2004	21-6-2026	38	113 km²	Doradilla Project
Stannum Pty Ltd (SKY sub)	100%	EL6699	10-1-2007	10-1-2027	14	41 km²	Tallebung Project
Stannum Pty Ltd (SKY sub)	100%	EL9200	21-06-2021	21-06-2027	74	221 km <sup>2</sup>	Emmaville Project
Stannum Pty Ltd (SKY sub)	100%	EL9210	01-07-2021	01-07-2027	82	244 km <sup>2</sup>	Gilgai Project
Stannum Pty Ltd (SKY sub)	100%	ELA6486	-	-	92	262 km <sup>2</sup>	Narriah Project – application

**Table 7:** Tenement Summary.



This report has been approved for release by the Board of Directors.

## ABOUT SKY (ASX: SKY)

SKY is an ASX listed public company focused on the exploration and development of high value mineral resources in Australia. SKY's project portfolio offers exposure to the tin, gold, and copper markets in the world class mining jurisdiction of NSW.

#### **GOLD PROJECTS**

## CULLARIN / KANGIARA PROJECTS (EL7954; EL8400 & EL8573, HRR FARM-IN)

Under the HRR farm-in, SKY has now earned an 80% interest in the projects via the expenditure of \$2M (ASX: 9 October 2019). 'McPhillamys-style' gold results from previous drilling at the Cullarin Project include 148.4m @ 0.97 g/t Au (WL31) including 14.6m @ 5.1 g/t Au from 16.2m, & 142.1m @ 0.89 g/t Au (WL28) including 12m @ 4.4 g/t Au from 25.9m. The Cullarin Project contains equivalent host stratigraphy to the McPhillamys deposit with a similar geochemical, geophysical & alteration signature. SKY's maiden drill program was very successful including core hole HUD002 which returned 93m @ 4.2 g/t Au from 56m.

#### CALEDONIAN / TIRRANA PROJECTS ( EL8920, EL9048, EL9120 100% SKY)

Highlight, 'McPhillamys-style' gold results from previous exploration include 36m @ 1.2 g/t Au from 0m to EOH in drillhole LM2 and 81m @ 0.87g/t Au in a costean on EL8920 at the Caledonian Project. The distribution of multiple historic drill intersections indicates a potentially large gold zone with discrete high-grade zones, e.g. 6m @ 8g /t Au recorded from lode at historic Caledonian Mines (GSNSW). A strong, robust soil gold anomaly (600 x 100m @ +0.1ppm) occurs and most drillholes (depth ~25m) terminate in the mineralised zone.

#### COPPER GOLD PROJECTS

#### GALWADGERE (EL6320, 100% SKY)

The Galwadgere project is located ~15km south-east of Wellington in central NSW. High grade copper-gold mineralisation has been intersected by previous explorers (e.g. 47m @ 0.90% Cu & 1.58g/t Au) and the mineralisation is open along strike and at depth.

#### IRON DUKE (EL6064, BALMAIN OPTION; EL9191 100% SKY)

The Iron Duke project is located ~10km south-east of Tottenham in central NSW. High grade copper-gold mineralisation has been intersected by previous explorers including 13m @ 1.56% Cu & 4.48g/t Au.

#### TIN PROJECTS

#### TALLEBUNG PROJECT (EL6699, 100% SKY)

The Tallebung Project is located ~70km north-west of Condobolin in central NSW. The project encompasses the historic Tallebung Tin Mining Field at the northern extent of the Wagga Tin Belt within the central Lachlan Orogen and is considered prospective for lode and porphyrystyle tin - tungsten mineralisation.

#### DORADILLA PROJECT (EL6258, 100% SKY)

The Doradilla Project is located ~ 30km south of Bourke in north-western NSW and represents a large and strategic tin project with excellent potential for associated polymetallic mineralisation (tin, tungsten, copper, bismuth, indium, nickel, cobalt, gold).

#### NEW ENGLAND PROJECT (EL9200 & 9210, 100% SKY)

SKY has been granted two exploration licences in the New England Orogen covering areas of significant historical tin production – Emmaville & Gilgai. These areas were selected as they were considered to have considerable potential to host hardrock tin resources and limited modern day exploration has been conducted.



Figure 11: SKY Location Map



#### COMPETENT PERSONS STATEMENT

The information in this report that relates to Exploration Results is based on information compiled by Rimas Kairaitis, who is a Member of the Australasian Institute of Mining and Metallurgy. Rimas Kairaitis is a Director of Sky Metals Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Kairaitis consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Metallurgical Results is based on information compiled by Michael Gunn, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Michael Gunn is a contractor of Sky Metals Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Gunn consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### PREVIOUSLY REPORTED INFORMATION

The information in this report that references previously reported exploration results is extracted from the Company's ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website or on the ASX website (www. asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

SKY ASX releases released during the December 2022 Quarter or referenced in the announcement are listed below:

25 October 2022 - SKY ASX Announcement 'Saleable Tin Concentrate Produced from Testwork - Updated'

1 November 2022 - SKY ASX Announcement 'Drilling Update'

6 December 2022 – SKY ASX Announcement 'Strong Tin Results Continue from Tallebung'

25 January 2023 - SKY ASX Announcement 'Large-Scale Rare Earth Element Mineralisation at Doradilla'

#### DISCLAIMER

This report contains certain forward-looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, costs, prices, future performance or potential growth of Sky Metals Ltd, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Sky Metals Ltd. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors. Nothing in this report should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

This document has been prepared in accordance with the requirements of Australian securities laws, which may differ from the requirements of United States and other country securities laws. Unless otherwise indicated, all ore reserve and mineral resource estimates included or incorporated by reference in this document have been, and will be, prepared in accordance with the JORC classification system of the Australasian Institute of Mining, and Metallurgy and Australian Institute of Geoscientists.

